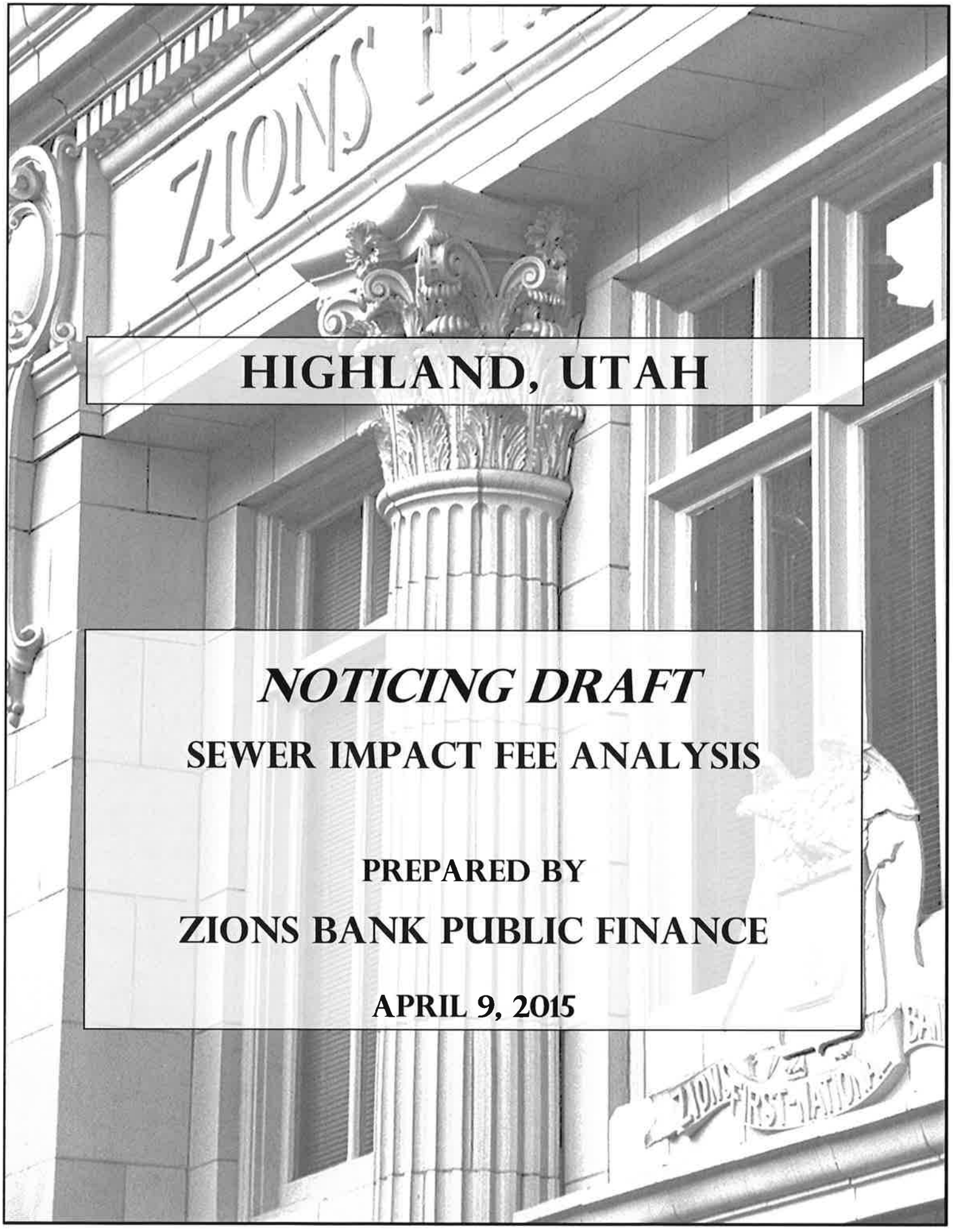


HIGHLAND, UTAH

NOTICING DRAFT

SEWER IMPACT FEE ANALYSIS

PREPARED BY

ZIONS BANK PUBLIC FINANCE

APRIL 9, 2015

Table of Contents

List of Figures 2
Executive Summary 3
Growth and ERC Projections 3
Level of Service Definitions 3
Proportionate Share Analysis 3
Existing Infrastructure and Capacity to Serve New Growth (Buy-In Component) 4
Future Capital Improvements 4
Outstanding and Future Debt 4
Calculated Fee 4
Chapter 1: Impact Fee Overview 6
Project Overview 6
Why Is the City Updating the Existing Analysis? 6
What is an Impact Fee? 6
How Will New Growth Affect the City? 6
Why Are Impact Fees Necessary? 7
Where Will the Impact Fees Be Assessed? 7
What Costs are Included in the Impact Fee? 8
What Costs Are Not Included in the Impact Fee? 9
How Are Impact Fees Calculated? 9
What is the Current Level of Service? 9
How are Schools Considered in this Analysis? 9
Chapter 2: Future Capital Projects and Level of Service 10
Impact Fee Analysis Requirements 10
Growth and ERC Projections 10
Level of Service Definitions 10
Existing Infrastructure and Capacity to Serve New Growth (Buy-In Component) 10
Treatment 11
Impact Fee Facilities Plan – Future Capital Projects 11
Chapter 3: Proportionate Share Analysis 12
Calculated Fee 13
Chapter 4: Certification and Appendices 15
Appendices 16

LIST OF FIGURES

Figure ES1: ERCs 3
Figure ES2: Maximum Legal Fee per ERC 5
Figure ES3: Non-Standard Impact Fee Calculation 5
Figure 1: Projected Growth in Population and Wastewater ERCs 7
Figure 2: Service Area Map 8
Figure 3: ERCs 10
Figure 4: Capital Projects by Service Area 11
Figure 5: Base Fee per ERC 13
Figure 6: Non-standard Impact Fee Calculation 14

EXECUTIVE SUMMARY

Zions Bank Public Finance (Zions) is pleased to provide Highland City (the City) with an update to the wastewater collection impact fee. The following pages summarize the document and tables included. The intent is to provide a concise discussion of the calculation and identification of the maximum legal impact fee.

Growth and ERC Projections

Currently the City has a total of 4,198 equivalent residential connections (ERCs). The following table identifies the current and future ERCs in the City. The analysis considers growth over the next ten years. Between now and 2024, ERCs will increase by 1,307 to reach 5,505. The wastewater IFA is seperated into two service areas, the Central Service Area and the South East Service Area. The Central Service Area will add 421 ERCs and the South East Service Area is expected to grow by 885 ERCs in the next ten years. The full growth table can be found in Appendix 1 of the document.

FIGURE ES1: ERCs

Wastewater		
	Current	**Buildout**
Current ERCs[1]	4,198	7,504

[1] *HAL 2015 IFFP*

Level of Service Definitions

Hansen Allen & Luce defined the City's level of service in the Impact Fee Facilities Plan. The plans state the following:

	LOS	2014	2024	Build Out 2064
Average Daily Flow	350 gpd/ERC	1.47 MGD	1.93 MGD	2.6 MGD
Peak day Flow	Ave. Day Flow x 2.1517 x ERCs $^{-0.156}$			
Maximum Depth Ratio	70% for 15" Pipes, 50% for Pipes smaller than 15"			
Minimum Velocity	2 fps			

PROPORTIONATE SHARE ANALYSIS

The Impact Fees Act requires that the Impact Fee Analysis estimate the proportionate share of the costs for existing capacity that will be recouped and the costs of impacts on system improvements that are reasonably related to the new development activity.

Part of the proportionate share analysis is a consideration of the manner of funding existing public facilities. A City typically funds existing infrastructure through several different funding sources including:

- General Fund Revenues
- User Fees
- Grants
- Bond Proceeds
- Developer Exactions
- Impact Fees

Historically the City has funded its existing wastewater infrastructure through user fees (rate revenues), impact fees and developer exactions and donations. All of these funding sources (with exception of developer contributions/donations) are impact fee qualifying expenses to be considered for buy-in purposes.

In consideration of future capital improvements, the City will continue using similar funding sources; no grants are being considered or are available at this time. Using impact fees places a burden on future users that is equal to the burden that was borne in the past by existing users.[1]

Existing Infrastructure and Capacity to Serve New Growth (Buy-In Component)

The City provided Zions with a list of all City owned assets for the collection system. The historic value of the facilities is $1,781,444[2]. The assets in the Central Service Area totals $1,550,206. The South East Service Area assets total $236,233. Only the original costs of the improvements have been considered. See Appendix 2 for the detailed list of assets for the collection system. An analysis has been completed to identify the capacity to serve new growth. Approximately 29% of the value of the existing assets shall be included as a buy-in component of the impact fee for the Central Service Area and 64% is included in the South East Service Area. This will be discussed in greater detail later in this document and can be found in Appendix 3 of this document.

Future Capital Improvements

Hansen Allen & Luce provided a list of capital projects to be constructed in the next six to ten years. The engineers defined the percent of the project that will benefit growth through the next ten years. The 2014 fiscal year total of capital improvements is $5,876,176. The Central Service Area projects make up $3,703,743 of that total and the South East Service Area capital projects total $2,172,433. The IFFP defines approximately 13% of the cost Central Service Area and 69% of the South East Service Area will be included into the impact fee calculation.

Outstanding and Future Debt

There is no outstanding wastewater related debt in Highland. It is not anticipated that the City will bond for wastewater within the next ten years.

Calculated Fee

The impact fees have been calculated with all the above considerations for the Central and South East Service Areas. The fee is calculated per ERC. For non-residential land uses, new connections will pay the fee based on the equivalent residential connections each land use generates.

The treatment component of Highland's wastewater utility is provided by Timpanogos Special Service District (TSSD). The District also assesses an impact fee. The City will collect the fee and remit the District's portion back to TSSD. The District's fee may change and thus, the total has not been identified in this analysis but can be found in the ordinance of the analysis. That way, if TSSD adopts a new fee, the City may update their fee schedule and not be required to update the entire impact fee analysis.

[1] Utah Impact Fees Act, 11-36a-304(2) (c) (d)
[2] HAL and Highland City

FIGURE ES2: MAXIMUM LEGAL FEE PER ERC[3]

CENTRAL SERVICE AREA

Units of Measure	Central Service Area Impact Fee
Per Equivalent Residential Connection	**$ 2,125.98**
Per Fixture Units (26 Units per ERC)	81.77
Per Gallon	$ 6.07

SOUTH EAST SERVICE AREA

Units of Measure	SE Service Area Impact Fee
Per Equivalent Residential Connection	**$ 2,175.14**
Per Fixture Units (26 Units per ERC)	83.66
Per Gallon	$ 6,214.68

FIGURE ES3: NON-STANDARD IMPACT FEE CALCULATION

Wastewater Non-Standard Impact Fee Formula
Central Service Area
Multiply Average Day Flow (Gallons) by Impact Fee per Gallon of $6.07
Southeast Service Area
Multiply Average Day Flow (Gallons) by Impact Fee per Gallon of $6.21

[3] Plus the TSSD treatment component fee added.

CHAPTER 1: IMPACT FEE OVERVIEW

PROJECT OVERVIEW

Zions Bank Public Finance (Zions) is pleased to provide Highland City (the City) with an update to the wastewater impact fees. Highland realizes that due to the age of its current analysis, as well as changes to the Impact Fees Act, required updates and review of its impact fees as well as its facility planning are needed. The City is still growing rapidly and has many capital needs. The update to the analysis is an intensive collaborative effort that meets the needs of City stakeholders and the City. The information used to create this fee analysis was provided by City staff, Zions Bank Public Finance and Hansen Allen & Luce.

The goal of the impact fee analysis is to calculate the maximum impact fee that may be assessed to new development and ensure the fee meets the requirements of the Impact Fees Act, Utah Code 11-36a-101 *et seq*. The sections and subsections of the Impact Fee Analysis will directly address the following items, required by the code:

- Impact Fee Analysis Requirements (Utah Code 11-36a-304)
  - Identify Existing Capacity to serve growth
    - Proportionate Share Analysis
  - Identify the level of service
  - Identify the impact of future development on exisitng and future improvements
- Calculated fee (Utah Code 11-36a-305)
- Certification (Utah Code 11-36a-306)

WHY IS THE CITY UPDATING THE EXISTING ANALYSIS?

The City has commissioned this Wastewater Impact Fee Analysis amendment to accomplish the following:

- Determine the maximum impact fee that may be assessed to new development;
- Update capital need projections and account for historic costs of facilities;
- Put the analysis in compliance with the changes to the Impact Fees Act effective May 2011;
- Include an Impact Fee Facilities Plan (IFFP) with a ten year capital planning horizon; and
- More clearly define the current level of service and the future level of service that the City will provide.

WHAT IS AN IMPACT FEE?

An impact fee is a one-time fee, not a tax, charged to new development to recover the City's cost of constructing wastewater collection facilities with capacity to serve new growth. The fee is assessed at the time of building permit issuance as a condition of development approval. The calculation of the impact fee must strictly follow the Impact Fees Act to ensure that the fee is equitable and fair.

This analysis shows that there is a fair comparison between the impact fee charged to new development and the impact the new development will have upon the system in terms of taking available capacity. Impact fees are charged to development according to a number of ERCs generated, which is a realistic measure of the potential wastewater demands that each user will add to the system.

HOW WILL NEW GROWTH AFFECT THE CITY?

According to the current Impact Fee Facilities Plan, the City's existing ERCs total 4,198 and the plan estimates that over the next six to ten years the City will add approximately 1,307 ERCs. When the City is built out, it is anticipated that there will be 7,504 ERCs.

This new growth and increased flows will generally increase wastewater demands as the density of development increases, and extending pipe networks and other facilities as development stretches farther away. In the case of the City, the capacity needed for new growth is found in both existing facilities that the City has built ahead of the growth

and in the future capital projects that will be constructed in the next ten years. The recommended impact fee will balance the cost of capacity that is already "in the ground" and new projects that are needed to serve the additional anticipated growth.

Population growth is important to Impact Fee Facilities Planning as population, in addition to non-residential demands, drive project needs and timing. However, this analysis is not population dependent as the system is sized for commercial, industrial, institutional, churches, schools, etc. The primary measurement of capacity and demand in a wastewater system is an ERC. The fee is based on capacity available in the existing system and in future projects and is not directly dependent upon population, as non-residential demands have a great impact upon the wastewater system, or upon the growth rate.

FIGURE 1: PROJECTED GROWTH IN POPULATION AND WASTEWATER ERCS

ERC Projections	
2015	4,198
2016	4,329
2017	4,459
2018	4,590
2019	4,721
2020	4,852
2021	4,982
2022	5,113
2023	5,244
2024	5,374
2025	5,505

ERC's Added in Central Service Area
421
ERC's Added in South East Service Area
885

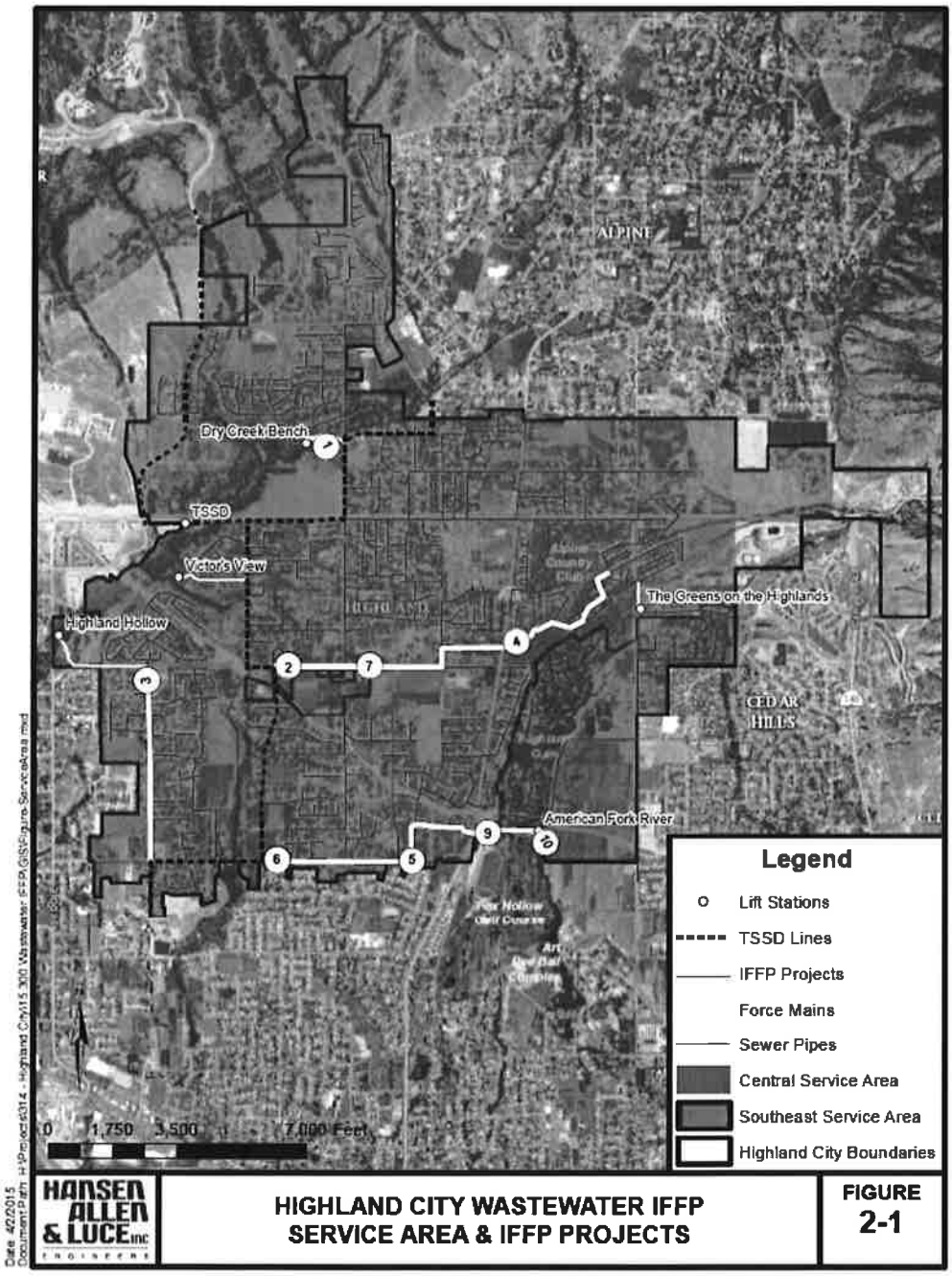
WHY ARE IMPACT FEES NECESSARY?

Impact fees are necessary to allocate the costs of unused wastewater system capacity that is reserved for new growth to the developments that will benefit from it. Impact fees help to shield existing users from shouldering the burden of paying not only for the capacity that they use but also from funding the cost of capacity needed for new development to occur.

WHERE WILL THE IMPACT FEES BE ASSESSED?

The impact fees will be assessed within the City's Central and South East Service Areas.. A detailed map of the Service Area included below.

FIGURE 2: SERVICE AREA MAP



WHAT COSTS ARE INCLUDED IN THE IMPACT FEE?

Impact fee revenues may not be spent on capital projects or associated costs, such as financing interest expenses that constitute repair and replacement, cure any existing deficiencies, or maintain the existing level of service for current users. Impact fees cannot fund operational expenses. The proposed impact fees will be assessed throughout each specific service area, Central and South East.

The impact fees proposed in this analysis are calculated based upon:

- Costs of replacement facilities that are needed to perpetuate unused capacity in the system that growth will require;
- New capital infrastructure that provides new capacity for growth;
- Historic costs of existing improvements that maintain capacity that will serve new development; and
- Cost of professional services for engineering, planning services and preparation of the Impact Fee Facilities Plan and Impact Fee Analysis.

What Costs Are Not Included in the Impact Fee?

The costs, both direct capital and financing, that cannot be included in the impact fee are as follows:

- Projects that cure deficiencies for existing users;
- Projects that increase the level of service above that which is currently provided;
- Operations and maintenance costs;
- Costs of facilities funded by grants or other funds that the City does not have to repay; and
- Costs of reconstruction of facilities that do not have capacity to serve new growth.

How Are Impact Fees Calculated?

The general impact fee methodology splits the capacity in existing facilities and future capital projects between that which already benefits existing users and capacity that is available to benefit new growth. A cost is assigned to the capacity that is available for new growth based upon the historic cost of water and secondary water facilities and the future costs of wastewater infrastructure. A final fee per residential or non-residential land use is calculated by multiplying the cost per ERC by the number of ERCs that each new unit of development will generate.

What is the Current Level of Service?

The IFFP has defined the current level of service as:

- Wastewater: 350 gallons per Equivalent Residential Connection per day.[4]

However, it must be considered that although this is the average day ERC, the system will be sized to meet peak. The peak day flow calculation and consideration is in the table below.

	LOS	2014	2024	Build Out 2064
Average Daily Flow	350 gpd/ERC	1.47 MGD	1.93 MGD	2.6 MGD
Peak day Flow	Ave. Day Flow x 2.1517 x ERCs $^{-0.156}$			
Maximum Depth Ratio	70% for 15" Pipes, 50% for Pipes smaller than 15"			
Minimum Velocity	2 fps			

How are Schools Considered in this Analysis?

The Impact Fees Act exempts schools from paying a parks and recreation impact fee but with proper documentation of the impact that a school could place on the wastewater system, the City can assess an impact fee for schools. The wastewater impact fee analysis quantifies the cost per ERC and also defines the number of ERCs that can be served by each size of wastewater meter that a school could install. The impact that a school will have upon the wastewater system is clearly defined by the size and number of wastewater meters that will be installed.

[4] HAL Impact Fee Facilities Plan

CHAPTER 2: FUTURE CAPITAL PROJECTS AND LEVEL OF SERVICE

IMPACT FEE ANALYSIS REQUIREMENTS

Growth and ERC Projections

According to the 2010 Census the population at that time was 15,523[5]. Population is important in the Capital Facilities and Impact Fee Facilities planning as population, and other factors, drive project need and timing. However, this Impact Fee Analysis is not population dependent. The driving force is the Equivalent Residential Connection (ERC). The Impact Fee Facilities Plan defines an ERC as 350 gallons per day usage[6]. Currently the City has 4,198 equivalent residential connections. There will be significant growth expected within the City's boundaries and increased demand on the City's collection facilities which will require new projects to meet further demand. The area is growing at a very rapid pace. In the next ten years it is anticipated that the City will grow to 5,505 ERCs (an increase of 1,307 ERCs). The ERCs are displayed below. The ERC growth in the Central Service Area is approximately 422 ERCs and the South East Service Area will grow by 885 ERCs.

FIGURE 3: ERCS

ERCs Added Per Year	
2015	-
2016	131
2017	131
2018	131
2019	131
2020	131
2021	131
2022	131
2023	131
2024	131
2025	131
Total	1,307

Level of Service Definitions

The Impact Fee Facilities Plan has defined the current level of service in Highland as:

- Collection: 350 gallons per day per indoor ERC

Existing Infrastructure and Capacity to Serve New Growth (Buy-In Component)

Appendix 3 provides an expense report for the assets owned and operated by Highland for collection/outfall lines. Included with the assets are the original dates of construction or acquisition and the original cost of the collection component of the wastewater system. An analysis has been completed to identify the capacity to serve new growth.

HAL and the City provided data for the existing system in each service area. The total historic value of the facilities is $1,781,444[7]. The assets in the Central Service Area totals $1,545,211. The Southeast Service Area assets total $236,233. Only the original costs of the improvements have been considered. See Appendix 2 for the detailed list of assets for the collection system. An analysis has been completed to identify the capacity to serve new growth.

[5] 2010 Census Data
[6] HAL IFFP
[7] HAL and Highland City

Approximately 29% of the value of the existing assets shall be included as a buy-in component of the impact fee for the Central Service Area and 64% is included in the South East Service Area.

Treatment

Timpanogos Special Service District provides the City treatment for the wastewater utility. The District assesses an impact fee for the treatment component of the utility. This fee is collected by Highland and remitted to the District. The current amount charged by TSSD can be found in the impact fee ordinance.

Impact Fee Facilities Plan – Future Capital Projects

The Impact Fee Facilities Plan developed the following capital projects, helped determine the timing and identified what was growth related, and of that amount, how much of the total capacity will be realized in the next ten years (percentage Impact Fee Qualifying & Impact Fee Qualifying Cost).

FIGURE 4: CAPITAL PROJECTS BY SERVICE AREA

Project Name	Year to be Constructed	FY 2015 Cost	Construction Cost	% to 10 Year Growth	Impact Fee Qualifying Cost	Non/Beyond 10 Year Growth Related
Central Service Area						
1 Pipe Replacement	2015	$ 300,000	$ 300,000	25%	$ 75,000	$ 225,000
2 Pipe Replacement	2015	605,000	605,000	11%	66,550	538,450
3 Pipe Replacement	2016	738,000	763,830	12%	91,660	672,170
4 Pipe Replacement	2020	962,000	1,142,554	11%	125,681	1,016,873
7 Pipe Replacement	2020	1,089,000	1,293,390	12%	155,207	1,138,184
8 Impact Fee Facility Plan and Master Plan Update	2020	9,743	11,572	100%	11,572	-
Central Service Area Cost		**3,703,743**	**4,116,346**		**525,669**	**3,590,677**
Southeast Service Area						
5 Pipe Replacement	2020	535,000	635,412	69%	438,434	196,978
6 Pipe Replacement	2020	638,000	757,744	58%	439,491	318,252
8 Impact Fee Facility Plan and Master Plan Update	2020	20,433	24,268	100%	24,268	-
9 American Fork Forcemain	2020	224,000	266,042	75%	199,531	66,510
10 American Fork Lift Station	2020	755,000	896,703	75%	672,527	224,176
Southeast Service Area Cost		**$2,172,433**	**$ 2,580,169**		**$ 1,774,253**	**$ 805,916**
Highland Total Cost		**$5,876,176**	**$ 6,696,515**		**$ 2,299,922**	**$ 4,396,594**

CHAPTER 3: PROPORTIONATE SHARE ANALYSIS

The Impact Fees Act requires that the Impact Fee Analysis estimate the proportionate share of the costs for existing capacity that will be recouped; and the costs of impacts on system improvements that are reasonably related to the new development activity.

Highland continues to grow and there is still expansion in the area. The capital improvement plan clearly defines what projects are growth related, repair and replacement, or pipe upsizing (the upsizing may include some element of growth). The projects are detailed later in the Future Capital Projects section.

Part of the proportionate share analysis is a consideration of the manner of funding existing public facilities. Historically the City has funded existing infrastructure through several different funding sources including:

- User Rates (rate revenues)
- Grants
- Bond Proceeds
- Developer Exactions
- Impact Fees

In order to ensure fairness to existing users, impact fees are an appropriate means of funding future capital infrastructure. Using impact fees places a burden on future users that is equal to the burden that was borne in the past by existing users. (Utah Impact Fees Act, 11-36a-304(2)(c)(d))

Just as existing infrastructure has been funded through different means; it is required by the Impact Fees Act to evaluate all means of funding future capital. There are positives and negative aspects to the various forms of funding. It is important to evaluate each.

User Rates

User rates have both been funded in one form or another by existing users. It would be an additional burden to existing users to use this revenue source to fund future capital to meet the needs of future users. This is not an equitable policy and can place too much stress on the tight budgets of the wastewater operating fund and other user rate funds. The wastewater rates in Highland are dedicated to payments on the public works building, operation and maintenance, repair and replacement and ensuring a stable reserve for maintaining a good credit rating. If rate revenues are required to supplement the capital required by growth, the City will reimburse the user rate fund with impact fees as they are collected and act as a loan to the impact fee fund to be repaid.

Property Taxes

It is true that property taxes may be a stable source of income. However, property taxes are not typically used to fund wastewater infrastructure. Using property taxes to fund future capital again places too much burden on existing users and subsidizes growth. The financial audits for the City do not show a line item for property taxes as a revenue stream for wastewater, thus any property taxes collected on the property being developed is not being used to fund infrastructure or operation and maintenance of the wastewater system.

Impact Fees

Impact fees are a fair and equitable means of providing infrastructure for future development. They provide a rational nexus between the costs borne in the past and the costs required in the future. The Impact Fees Act ensures that future development is not paying any more than what future growth will demand. Existing users and future users receive equal treatment; therefore, impact fees are the optimal funding mechanism for future growth related capital needs.

Developer Credits

If a project included in the Impact Fee Facilities Plan (or a project that will offset the demand for a system improvement that is listed in the IFFP) is constructed by a developer that developer is entitled to a credit against impact fees owed. (Utah Impact Fees Act, 11-36a-304(2)(f))

Time-Price Differential

Utah Code 11-36a-301(2)(h) allows for the inclusion of a time-price differential in order to create fairness for amounts paid at different times. To address the time-price differential, this analysis includes an inflationary component to account for construction inflation for future projects. Projects constructed after the year 2013 will be calculated at a future value with a 2.43% inflation rate. All users who pay an impact fee today or within the next six to ten years will benefit from projects to be constructed and included in the fee.

Other

In this particular analysis, there is also a credit for unspent impact fee revenues collected in the past. The current impact fee fund balance for wastewater was credited against the fee.

Calculated Fee

The impact fees have been calculated with all the above considerations for the Central and South East Service Areas. The fee is calculated per a single ERC. The fees per ERC can be found in Figure 6. These tables can also be found in Appendix 4.

Figure 5: Base Fee per ERC

CENTRAL SERVICE AREA

Units of Measure	Central Service Area Impact Fee
Per Equivalent Residential Connection	$ 2,125.98
Per Fixture Units (26 Units per ERC)	81.77
Per Gallon	$ 6.07

SOUTH EAST SERVICE AREA

Units of Measure	SE Service Area Impact Fee
Per Equivalent Residential Connection	$ 2,175.14
Per Fixture Units (26 Units per ERC)	83.66
Per Gallon	$ 6,214.68

The Highland City Council has the discretion to set the actual impact fees to be assessed, but they may not exceed the maximum allowable fees calculated. The City may, on a case by case basis, work directly with a developer to adjust the standard impact fee to respond to unusual circumstances and ensure that impact fees are imposed fairly. This adjusted impact fee calculation will be based on the cost per unit defined above, multiplied by the number of units created by the applicable development type.

FIGURE 6: NON-STANDARD IMPACT FEE CALCULATION

Wastewater Non-Standard Impact Fee Formula
Central Service Area
Multiply Average Day Flow (Gallons) by Impact Fee per Gallon of $6.07
Southeast Service Area
Multiply Average Day Flow (Gallons) by Impact Fee per Gallon of $6.21

CHAPTER 4: CERTIFICATION AND APPENDICES

In accordance with Utah Code Annotated, 11-36a-306(2), Zions Bank Public Finance makes the following certification:

I certify that the attached impact fee analysis:

1. includes only the cost of public facilities that are:
   a. allowed under the Impact Fees Act; and
   b. actually incurred; or
   c. projected to be incurred or encumbered within six years after the day on which each impact fee is paid;
2. does not include:
   a. costs of operation and maintenance of public facilities;
   b. cost of qualifying public facilities that will raise the level of service for the facilities, through impact fees, above the level of service that is supported by existing residents;
   c. an expense for overhead, unless the expense is calculated pursuant to a methodology that is consistent with generally accepted cost accounting practices and the methodological standards set forth by the federal Office of Management and Budget for federal grant reimbursement;
3. offset costs with grants or other alternate sources of payment; and
4. complies in each and every relevant respect with the Impact Fees Act.

Zions Bank Public Finance makes this certification with the following caveats:

1. All of the recommendations for implementations of the Impact Fee Facilities Plans ("IFFPs") made in the IFFP documents or in the impact fee analysis documents are followed in their entirety by Highland staff and elected officials.
2. If all or a portion of the IFFPs or impact fee analyses are modified or amended, this certification is no longer valid.
3. All information provided to Zions Bank Public Finance, its contractors or suppliers is assumed to be correct, complete and accurate. This includes information provided by Highland and outside sources. Copies of letters requesting data are included as appendices to the IFFPs and the impact fee analysis.

Dated: April 9, 2015

ZIONS BANK PUBLIC FINANCE

By Zions Bank Public Finance

APPENDICES

Notice Date & Time: September 11, 2014 | 7:00 AM - 11:59 PM
Description/Agenda: Notice Title: Notice of Intent to Create Impact Fee Facilities Plans and Amended Impact Fee Written Analyses

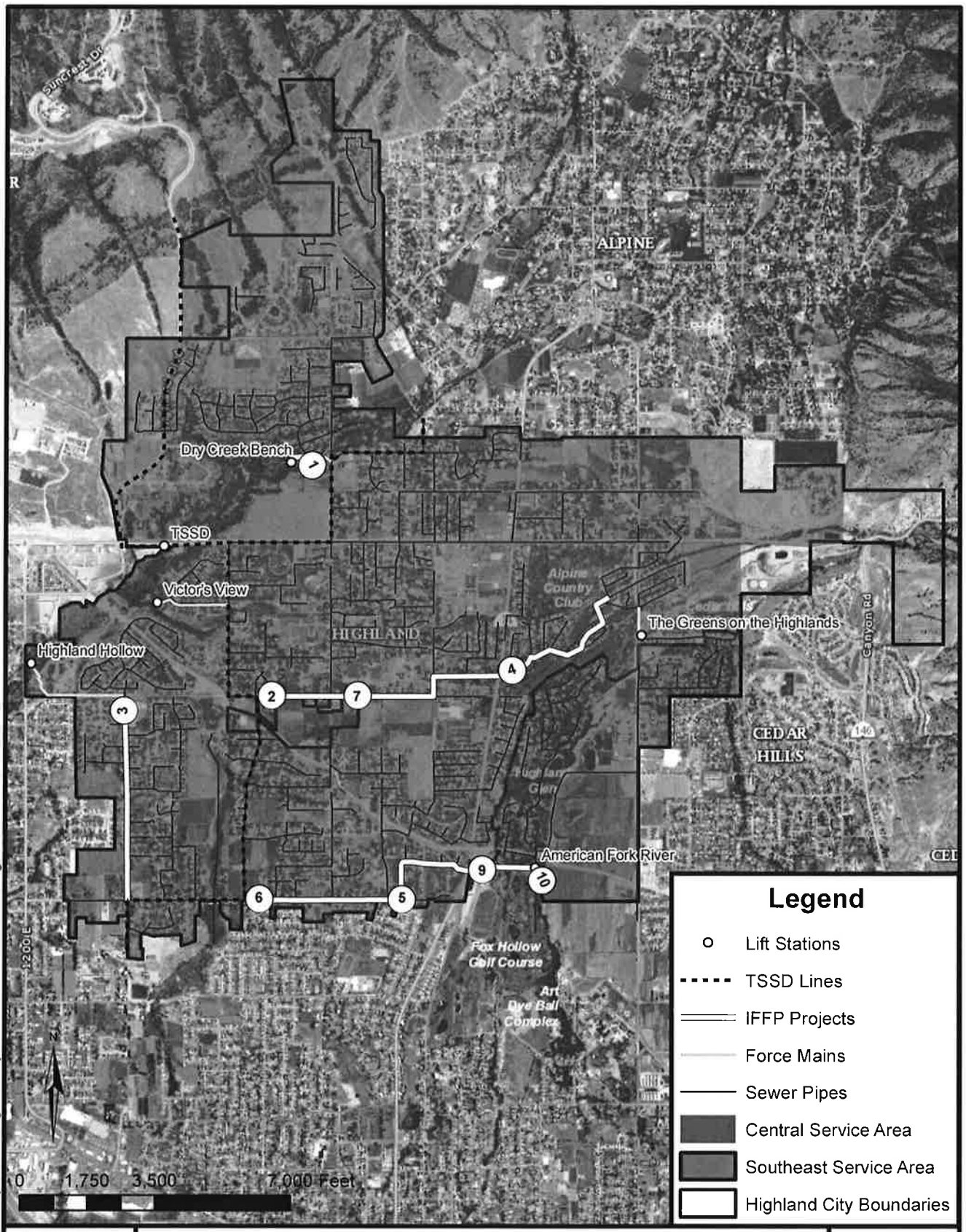
NOTICE OF INTENT TO CREATE IMPACT FEE FACILITIES PLANS AND AMENDED IMPACT FEE WRITTEN
ANALYSES

Highland City, a municipality of the State of Utah, located in Utah County, Utah intends to commence the preparation of independent and comprehensive Impact Fee Facilities Plans and Written Impact Fee Analyses for the services of secondary water, sanitary sewer, parks, recreation and trails, roads and public safety. Therefore, pursuant to the provisions of 11-36a-501 and 503 of the Utah Code, as amended 2011, notice is hereby provided to you of the intent of Highland City to create an Impact Fee Facilities Plans and amend Highland City's Impact Fee Written Analyses. The location(s) that will be included in the Impact Fee Facilities Plans and Impact Fee Analyses are all areas within the legal Highland City limits and the declared annexation areas of Highland City.

BY ORDER OF THE CITY COUNCIL OF HIGHLAND CITY

Public Notice Website http://www.utah.gov/pmn/sitemap/notice/231435.html

(This Page Intentionally Left Blank)



Date: 4/2/2015
Document Path: H:\Projects\314 - Highland City\15.300 Wastewater IFFP\GIS\Figure-ServiceArea.mxd

HANSEN ALLEN & LUCE inc ENGINEERS

HIGHLAND CITY WASTEWATER IFFP SERVICE AREA & IFFP PROJECTS

FIGURE 2-1

Appendix 1:

CURRENT AND FUTURE ERCs

Wastewater		
	Current	Buildout
Current ERCs[1]	4,198	7,504

[1] *HAL 2015 IFFP*

ERC Projections	
2015	4,198
2016	4,329
2017	4,459
2018	4,590
2019	4,721
2020	4,852
2021	4,982
2022	5,113
2023	5,244
2024	5,374
2025	5,505

ERCs Added in Central Service Area
422
ERCs Added in South East Service Area
885

Appendix 2:
CAPITAL PROJECTS - IMPACT FEE FACILITIES PLAN
Inflation Rate* 3.5%

Project Name	Year to be Constructed	FY 2015 Cost	Construction Cost	% to 10 Year Growth	Impact Fee Qualifying Cost	Non/Beyond 10 Year Growth Related
			Collection			
Central Service Area						
1 Pipe Replacement	2015	$ 300,000	$ 300,000	25%	$ 75,000	$ 225,000
2 Pipe Replacement	2015	605,000	605,000	11%	66,550	538,450
3 Pipe Replacement	2016	738,000	763,830	12%	91,660	672,170
4 Pipe Replacement	2020	962,000	1,142,554	11%	125,681	1,016,873
7 Pipe Replacement	2020	1,089,000	1,293,390	12%	155,207	1,138,184
8 Impact Fee Facility Plan and Master Plan Update	2020	9,743	11,572	100%	11,572	-
Central Service Area Cost		**$ 3,703,743**	**$ 4,116,346**		**$ 525,669**	**$ 3,590,677**
South East Service Area						
5 Pipe Replacement	2020	$ 535,000	$ 635,412	69%	$ 438,434	$ 196,978
6 Pipe Replacement	2020	638,000	757,744	58%	439,491	318,252
8 Impact Fee Facility Plan and Master Plan Update	2020	20,433	24,268	100%	24,268	-
9 American Fork Forcemain	2020	224,000	266,042	75%	199,531	66,510
10 American Fork Lift Station	2020	755,000	896,703	75%	672,527	224,176
South East Service Area Cost		**$ 2,172,433**	**$ 2,580,169**		**$ 1,774,253**	**$ 805,916**
Highland Total Cost		**$ 5,876,176**	**$ 6,696,515**		**$ 2,299,922**	**$ 4,396,594**

Appendix 3:
ASSETS
Collector Lines

Date Acquired	Description	Original Cost	% 10 yr Growth	Impact Fee Qualifying
	Central Service Area			
1987	Project 9	4,995	16%	774
1997	L-11 Area	56,236	21%	11,891
1997	L-13 Area	52,570	20%	10,646
1997	L-13 Area	79,029	20%	16,004
1997	L-13 Area	11,744	20%	2,378
1997	L-13 Area	60,291	20%	12,209
1989	L-16 Area	104,312	13%	13,740
1997	L-16 Area	47,188	13%	6,216
1997	L-16 Area	21,603	13%	2,846
1997	L-16 Area	62,741	13%	8,264
1997	L-16 Area	10,778	13%	1,420
1997	L-19 Area	91,750	8%	6,931
1997	L-19 Area	31,263	8%	2,362
1997	L-19 Area	87,472	8%	6,608
1997	L-19 Area	30,875	8%	2,332
1997	L-19 Area	17,413	8%	1,315
1997	L-6 Area	53,951	17%	9,215
1997	L-6 Area	34,445	17%	5,883
1997	L-6 Area	4,704	17%	803
1997	Project 6	106,024	66%	69,574
1997	Project 6	41,626	66%	27,315
1997	Project 6	3,913	66%	2,568
1997	Project 6	15,609	66%	10,243
1997	Project 6	16,840	66%	11,050
1997	Project 6	10,128	66%	6,646
1997	Project 6	114,055	66%	74,845
1996	Project 6	45,108	66%	29,600
1997	Project 6	69,849	66%	45,836
1997	Project 6	12,167	66%	7,984
1987	Project 9	111,330	16%	17,261
1987	Project 9	32,320	16%	5,011
1987	Project 9	13,454	16%	2,086
1987	Project 9	32,913	16%	5,103
1987	Project 9	22,215	16%	3,444
1987	Project 9	39,295	16%	6,093
Central Service Area Subtotal		**$ 1,550,206**		**$ 446,496**
	South East Service Area			
2007	American Fork River	220,214	67%	147,403
1997	American Fork River	16,019	21%	3,341
South East Service Area Subtotal		**$ 236,233**		**$ 150,744**
Total		**$ 1,786,439**		**$ 597,240**

Appendix 4:
BASE FEE PER ERC
Highland Impact Fee

Central Service Area	Cost	% Impact Fee Qualifying	Impact Fee Qualifying Cost	ERCs to be Served	Cost per ERC
Collection Impact Fee					
IFFP Projects	$ 4,116,346	13%	$ 525,669	422	$ 1,246
Buy In - Existing Assets	1,550,206	29%	446,496	422	1,058
Impact Fee Fund Balance*	(300,000)	25%	(75,000)	422	(178)
Subtotal	5,366,552	17%	897,165		2,126
Total Impact Fee Per ERC					**$ 2,126**

*Funds already in balance to pay for Project 1 Pipe Replacement

Units of Measure	Central Service Area Impact Fee
Per Equivalent Residential Connection	**$ 2,125.98**
Per Fixture Units (26 Units per ERC)	81.77
Per Gallon	$ 6.07

South East Service Area	Cost	% Impact Fee Qualifying	Impact Fee Qualifying Cost	ERCs to be Served	Cost per ERC
Collection Impact Fee					
IFFP Projects	$ 2,580,169	69%	$ 1,774,253	885	$ 2,005
Buy In - Existing Assets	236,233	64%	150,744	885	170
Subtotal	2,816,402	68%	1,924,997		2,175
Total Impact Fee Per ERC					**$ 2,175**

Units of Measure	SE Service Area Impact Fee
Per Equivalent Residential Connection	**$ 2,175.14**
Per Fixture Units (26 Units per ERC)	83.66
Per Gallon	$ 6,214.68

Wastewater Non-Standard Impact Fee Formula
Central Service Area
Multiply Average Day Flow (Gallons) by Impact Fee per Gallon of $6.07
South East Service Area
Multiply Average Day Flow (Gallons) by Impact Fee per Gallon of $6.21

WASTEWATER
IMPACT FEE FACILITY PLAN SUMMARY

The purpose of the Wastewater Impact Fee Facilities Plan ("IFFP") –, with supporting Impact Fee Analysis ("IFA"), is to fulfill the requirements established in Utah Code Title 11 Chapter 36a, the "Impact Fees Act," and assist Highland City (the "City") to plan necessary capital improvements for future growth. The IFFP addresses only the future Wastewater infrastructure needed to serve the City through the next ten years, and to maintain the existing level of service ("LOS") with the added demands of new development.

The Plans summarize the following:

- Identify the LOS for the Wastewater system
- Demands placed upon the existing Wastewater facilities by new development
- The proposed facilities by which the City will meet these demands

The following summarizes the plan:

Existing System and Level of Service

The existing Wastewater System is comprised of a pipe network and lift stations. Timpanogos Special Service District (TSSD) provides for treatment of the wastewater and also implements their own treatment impact fees separate from the City.

The existing LOS for the Wastewater system was determined during the Master Planning process developed in 2007. The LOS was established as 350 gallons per day per equivalent residential connection (ERC).

An existing system analysis was performed using the LOS demands to identify remaining capacity in the system. A number of the pipes in the system and lift stations were found to have additional capacity for future growth.

Facilities Required For New Growth

Future demands on the system were based on the growth projections. A new lift station and pipelines were identified for the undeveloped State Developmental Center properties. Other pipe replacement projects were identified to meet new growth throughout the City.

The City was divided into two service zones as shown in Figure 2-1 of the IFFP. The Central area provides for the majority of the City. The Southeast area provides for the undeveloped Utah State Developmental Center properties along with other eastern portions of the City that would utilize the American Fork River lift station.

The IFFP included only projects that are required for new development over the next 10 years. Those projects are listed below. The total amount for wastewater impact fee facilities listed in Table S-1 is $5,876,176 in 2015 dollars.

TABLE S-1: IMPACT FEE FACILITIES FOR UPCOMING 10-YEARS

ID	Project Description	Service Area	2015 ERCs	2024 ERCs	Build Out 2064 ERCs
1	12" Pipe Replacement (MP#1)	Central	471	784	1,262
2	12" Pipe Replacement (MP#2)	Central	1023	1,173	1,402
3	12" Pipe Replacement (MP#3)	Central	541	630	765
4	12" Pipe Replacement (MP#4)	Central	614	711	859
5	15" Pipe Replacement	Southeast	368	1,276	1,311
6	15" Pipe Replacement	Southeast	570	1,535	1,658
7	12" Pipe Replacement (MP#7)	Central	844	988	1,209
8	Impact Fee Facility Plan and Master Plan Update	Central and Southeast	4,198	5,505	7,504
9	12" Forcemain Replacement	Southeast	295	1,180	1,180
10	New American Fork Lift Station with 1,200 gpm capacity	Southeast	295	1,180	1,180

WASTEWATER IMPACT FEE FACILITY PLAN

(HAL Project No.: 314.15.300)

April 2015

HIGHLAND CITY

WASTEWATER
IMPACT FEE FACILITY PLAN

(HAL Project No.: 314.15.300)

Tavis B. Timothy, P.E.
Project Engineer

HANSEN ALLEN & LUCE inc
ENGINEERS

January 2015

CERTIFICATION OF IMPACT FEE FACILITY PLAN

I certify that, to the best of my knowledge, the attached impact fee facilities plan:

1. includes only the costs of public facilities that are:
   a. allowed under the Impact Fees Act; and
   b. actually incurred; or
   c. projected to be incurred or encumbered within six years after the day on which each impact fee is paid;
2. does not include:
   a. costs of operation and maintenance of public facilities;
   b. costs for qualifying public facilities that will raise the level of service for the facilities, through impact fees, above the level of service that is supported by existing residents;
   c. an expense for overhead, unless the expense is calculated pursuant to a methodology that is consistent with generally accepted cost accounting practices and the methodological standards set forth by the federal Office of Management and Budget for federal grant reimbursement; and
3. complies in each and every relevant respect with the Impact Fees Act.

Prepared by: _____
Tavis B. Timothy, P.E.

TABLE OF CONTENTS

CERTIFICATION OF IMPACT FEE FACILITY PLAN i
TABLE OF CONTENTS ii

CHAPTER 1 – EXECUTIVE SUMMARY 1-1
PURPOSE AND BACKGROUND 1-1
EXECUTIVE SUMMARY 1-1

CHAPTER 2 – IMPACT FEE FACILITY PLAN 2-1
EXISTING SYSTEM DESCRIPTION 2-1
GROWTH 2-1
LEVEL OF SERVICE 2-1
Summary 2-3
EXCESS CAPACITY 2-3
FUTURE FACILITIES 2-4
IMPACT FEE FACILITY PLAN 2-5
REVENUE OPTIONS 2-5
General Obligation Bonds through Property Taxes 2-5
Revenue Bonds 2-6
State/Federal Grants and Loans 2-6
Impact Fees 2-6
User Fees 2-7

REFERENCES R-1

LIST OF TABLES

Table 2-1 Growth Projection 2-1
Table 2-2 Level of Service Summary 2-3
Table 2-3 Pump Station Capacity 2-4
Table 2-4 Future Projects 2-4
Table 2-5 Impact Fee Facility Plan 2-5

LIST OF FIGURES

After Page
Figure 2-1 Service Area and IFFP Projects 2-1

CHAPTER 1 – EXECUTIVE SUMMARY

PURPOSE AND BACKGROUND

The purpose of this Impact Fee Facility Plan (IFFP) is to provide direction to Highland City regarding the impact of future growth on the wastewater system within the next ten years.

Highland City was incorporated in 1977 with one of the purposes of incorporation being "To provide for and assure adequate sewage disposal is available for future use" (LeBaron & Luntz, 2007). Highland City provides wastewater collection services for the residents of the City. Wastewater collected by the City is conveyed to pipes owned and managed by the Timpanogos Special Service District (TSSD). TSSD also implements impact fees to pay for future facilities separate from those fees collected by the City.

EXECUTIVE SUMMARY

Data from the City's 2007 Wastewater Collection System Master Plan and additional data provided by the City provide the basis for the IFFP. Growth projections were taken from the Governor's Office of Management and Budget (GOPB, 2012). The IFFP considers growth over the next ten years (2024) and does not include the facilities required for growth beyond 2024.

During the preparation of the IFFP, existing and proposed levels of service were evaluated for collection of the waste water collection system. In each case, it was determined that the proposed level of service should be the same as existing level of service. The average flow level of service was 350 gpd/ERC.

Existing excess capacity was also reviewed so that costs incurred to create the existing system could be factored into the impact fees. The computer model was utilized to assess the capacity of the pipelines and pump stations. Costs for remaining capacity in existing pipelines and pump stations constructed by the City were utilized in the Impact Fee Analysis.

The impact fee facilities projects were grouped into collection system and pump station facility classifications. The capacity of each project was provided in ERCs.

Impact Fees for the wastewater system will be split between the Central Service area of Highland and the Southeast Service area. The identified projects for the collection system and pumping facilities provide a total cost of $5,684,752. The ten year growth component total cost for the projects is $1,949,280.

CHAPTER 2 – IMPACT FEE FACILITY PLAN

EXISTING SYSTEM DESCRIPTION

Highland City provides wastewater collection services to approximately 8.6 square miles and approximately 17,090 residents in northeastern Utah County, Utah. The wastewater collection system contains over 60 miles of wastewater pipe ranging between 8 and 12 inches in diameter, and over 1,500 manholes. Highland City has 5 wastewater pumping stations that help convey all the wastewater collected by the system to the Timpanogos Special Service District (TSSD) trunk lines and to the TSSD treatment plant.

Hansen, Allen, & Luce Inc. completed a Wastewater Collection System Master Plan for Highland City in 2007. Information from the master plan was used in conjunction with data from Highland City to create this impact fee facility plan.

GROWTH

Growth rates were taken from the Governor's Office of Management and Budget (GOPB, 2012) for Highland City. The current population, of approximately 17,090, was estimated using 2014 building permit information, the vacancy rate, and the average household size as provided by Highland City. Growth projections were developed using the 2014 population estimate from the City, growth projections from the Utah State Developmental Center Properties Master Plan (USDC, 2013), and the growth rates from the Governor's Office of Management and Budget. It was assumed that the Equivalent Residential Connections (ERCs) for the Central service area will grow at the same rate as the general population. Non-residential connections were included in the estimate using non-residential square footage provided by the City, with 10,000 square feet of non-residential building being equal to one ERC. Table 2-1 shows the growth projections for Highland City. This IFFP accounts for growth over the next ten years (2024). Growth beyond 2024 is considered part of the build-out growth. Growth for the Central Service Area is anticipated to grow by 422 ERCs by 2024. It is estimated that for the Southeast Service Area (Utah State Developmental Center) buildout will be by 2024 with anticipated growth equaling 885 ERCs.

Table 2-1
Growth Projection

Year	ERCs
2010	3,812
2015	4,198
2024	5,505
2064 (Build-out)	7,504

LEVEL OF SERVICE

The level of service is the "defined performance standard or unit of demand for each capital component of a public facility within a service area" according to the Utah Impact Fees Act (Utah Division of Administrative Rules, 2011). The Highland City Wastewater Collection System was split into two service areas to reflect growth expected over the majority of the City (Central Service Area) and to account for an area in the southeast part of the City expected to see

significant development (Southeast Service Area). The two service areas can be seen on Figure 2-1.

Most individual features of a wastewater collection system only have a direct effect on a limited area. For example a pump station generally benefits connections that flow to the pump station. However, it is assumed that the overall system benefits the entire City to collect and convey wastewater.

Highland City's wastewater system is comprised of only the collection of wastewater flows. The existing and proposed levels of service for the wastewater system were determined. Generally, the existing level of service matches the proposed level of service. Impact fees may not be used to pay for any services above the existing level of service.

The level of service was based on the Wastewater Collection System Master Plan (Hansen, Allen, & Luce, Inc., 2007). Although the master plan was completed in 2007, the existing level of service does not appear to have changed significantly since the master plan was completed.

Collection

The collection system relies on pump stations and sewer piping to convey all the wastewater generated in the system to TSSD facilities. The level of service based on the actual average flow data, as reported in the Master Plan, is 350 gallons per day (gpd) per ERC (Equivalent Residential Connection). It is proposed that the level of service for future connections be equal to the existing **average flow level of service of 350 gpd per ERC**.

Flows were metered at 6 different locations for the Master Plan. The metered flow was used to determine the peaking factor at each location and to create an equation to estimate the peaking factor based on the number of ERCs tributary to the location. The equation to estimate peaking in the system is:

$$Peaking\ Factor = 2.1517 * (ERCs * \frac{350}{1{,}000{,}000})^{-0.156}$$

For comparison, the State of Utah Administrative Code requires new sewer systems be designed on the basis of an annual average daily rate of flow of 100 gallons per capita per day unless other data are available. The per capita flow rate includes infiltration and inflow. Using 4.37 persons per household, would have required an average day flow of 437 gpd/ERC if reliable data had not been available from the City. The State of Utah Administrative Code requires a design flow of 400 gallons per capita per day for lateral and collector sewers or a peaking factor of 4. A design flow of 250 gallons per capita per day is required for interceptor and outfall sewers or a peaking factor of 2.5. This would have required a peak flow of 1,748 gpd per ERC for collector sewers and 1092 gpd per ERC for the interceptor sewer.

The capacity of a wastewater pipe network is determined by the depth ratio in each pipe (depth of flow divided by diameter of pipe). Because pressurized gravity flow in wastewater systems is highly undesirable, Highland City determined that a depth ratio of 70% for their sewers 15 inches in diameter and larger is acceptable and a depth ratio of 50% for all pipes less than 15 inches in diameter is acceptable. These depth ratios are considered the level of service for the pipe network.

In order to prevent settling of solids, Highland City has also determined that in accordance with state law no pipe should be designed to carry loads with velocities less than 2 feet per second.

Summary

Table 2-2 provides a summary of the proposed level of service for existing and future ERCs.

Table 2-2
Level of Service Summary

	LOS	2014	2024	Build Out (2064)
Average Day Flow	350 gpd/ERC	1.47 MGD	1.93 MGD	2.6 MGD
Peak Day Flow	Ave. Day Flow x 2.1517 x (ERCs x 350 / 1,000,000)$^{-0.156}$			
Maximum Depth Ratio	70% for 15+" pipes, 50% for pipes smaller than 15"			
Minimum Velocity	2 fps			

EXCESS CAPACITY

The 2007 Wastewater Collection System Master Plan evaluated the capacity of the existing wastewater collection system using SewerCAD software. The model utilized criteria identical to the level of service listed in Table 2-1. Individual capacities of pipes and pump stations were determined and projects were recommended based on build-out loading. Two areas were recently modeled to reflect recent growth projections in the northwest and southeast areas of the City. The individual capacities were updated with growth projections collected for this IFFP.

The capacity of the existing system was compared to the loading of the existing system based on the level of service summarized above. In cases where the existing system's capacity is capable of handling future connections, costs incurred to create the existing system can be factored into the impact fees. In cases where the existing system does not have excess capacity, only costs for the future projects can be included in the impact fees.

Specific projects recommended in the Master Plan and planned for the next ten years were analyzed to determine how much of the future project will be utilized by existing connections versus future connections. The existing vs future utilization was determined by the loading of existing and build-out conditions in the model.

The majority of the pump stations in the system were determined to have excess capacity. The Master Plan analyzed average flow rates to each pump station and compared the flows to the peak flow rates. The build out peak flow rate was then compared to the pump station capacity. Table 2-3 shows the pump station capacities, excess capacity, and the contributions of flow from existing ERCs, future ERCs over the next 10 years, and ERCs beyond 2024. However, only the American Fork River and Dry Creek Bench Pump Stations were constructed by the City.

Table 2-3
Pump Station Capacity

Pump Station	Capacity	Build Out Peak Flow	Existing 2015		10-yr Growth		Growth Beyond 2024	
			ERC	%	ERC	%	ERC	%
Highland Hollow	225 gpm	175 gpm	235	66%	29	8%	91	26%
American Fork River	300 gpm	1,200 gpm	295	25%	885	75%	0	0%
The Greens on the Highlands	205 gpm	35 gpm	39	47%	11	13%	34	40%
Dry Creek Bench	850 gpm	850 gpm	578	46%	167	13%	517	41%
Victor's View	200 gpm	100 gpm	68	65%	9	8%	27	26%

FUTURE FACILITIES

Data for the proposed wastewater system projects and their associated costs were provided in the 2007 Master Plan. Highland City determined which projects they anticipate completing or starting before 2024. Additional projects were added based on altered growth projections in the southeast area due to the Utah State Developmental Center properties.

Many future projects will benefit existing residents. Therefore costs for each project were split into the ratio between existing and future ERCs. This method avoids burdening future connections with the entire cost of projects that will also benefit existing connections.

The projects required for future growth are listed in Table 2-4, with the Master Plan ID in parenthesis.

Table 2-4
Future Facility Projects

ID	Project Description	Service Area	2015 ERCs	2024 ERCs	Build Out 2064 ERCs
1	12" Pipe Replacement (MP#1)	Central	471	784	1,262
2	12" Pipe Replacement (MP#2)	Central	1023	1,173	1,402
3	12" Pipe Replacement (MP#3)	Central	541	630	765
4	12" Pipe Replacement (MP#4)	Central	614	711	859
5	15" Pipe Replacement	Southeast	368	1,276	1,311
6	15" Pipe Replacement	Southeast	570	1,535	1,658
7	12" Pipe Replacement (MP#7)	Central	844	988	1,209
8	Impact Fee Facility Plan and Master Plan Update	Central and Southeast	4,198	5,505	7,504
9	12" Forcemain Replacement	Southeast	295	1,180	1,180
10	New American Fork Lift Station with 1,200 gpm capacity	Southeast	295	1,180	1,180

IMPACT FEE FACILITY PLAN

Impact Fees for the Highland Wastewater Collection System will be split into the two service areas mentioned earlier. Table 2-5 contains the Highland Impact Fee Facility Plan for each service area. The projects in the IFFP can also be seen on Figure 2-1.

Table 2-5
Impact Fee Facility Plan

ID	Anticipated Year	Project Cost	ERC Utilization			Cost due to 10 yr Growth
			Existing	2015 - 2024	2024 - 2064	
Central Service Area						
1	Year 1	$300,000	37%	25%	38%	$74,389
2	Year 2	$605,000	73%	11%	16%	$64,718
3	Year 3	$738,000[1]	71%	12%	18%	$85,446
4	Year 6-10	$962,000	71%	11%	17%	$108,660
7	Year 6-10	$1,089,000	70%	12%	18%	$130,155
8	Year 1-5	$9,743[2]	0%	100%	0%	$9,743
Central Area Cost		**$3,703,743**	**Central Area 10 yr Growth Cost**			**$473,112**
Southeast Service Area						
5	Year 6-10	$535,000	28%	69%	3%	$370,434
6	Year 6-10	$638,000	34%	58%	7%	$371,345
8	Year 1-5	$20.433[2]	0%	100%	0%	$20,433
9	Year 6-10	$224,000	25%	75%	0%	$167,933
10	Year 6-10	$755,000	25%	75%	0%	$566,024
Southeast Area Cost		**$2,172,433**	**Southeast Area 10 yr Growth Cost**			**$1,496,168**
Highland Total Cost		**$5,876,176**	**Highland Total 10 yr Growth Cost**			**$1,969,280**

[1]Project 3 is expected to only be 50% completed over the next 10 years. Displayed cost is 50% of the projects total.
[2]Project 8 is proportional for each Area based on ERCs.

REVENUE OPTIONS

Revenue options for the recommended projects, in addition to use fees, could include the following options: general obligation bonds, revenue bonds, State/Federal grants and loans, and impact fees. In reality, the City may need to consider a combination of these funding options. The following discussion describes each of these options.

General Obligation Bonds through Property Taxes

This form of debt enables the City to issue general obligation bonds for capital improvements and replacement. General Obligation (G.O.) Bonds would be used for items not typically financed through the Water Revenue Bonds (for example, the purchase of water source to ensure a sufficient water supply for the City in the future). G.O. bonds are debt instruments backed by the full faith and credit of the City which would be secured by an unconditional pledge of the City to levy assessments, charges or ad valorem taxes necessary to retire the bonds. G.O. bonds are the lowest-cost form of debt financing available to local governments and can be combined with other revenue sources such as specific fees, or special assessment charges to form a dual security through the City's revenue generating authority. These bonds are supported by the City as a whole, so the amount of debt issued for the water system is limited to

a fixed percentage of the real market value for taxable property within the City. For growth related projects this type of revenue places an unfair burden on existing residents as they had previously paid for their level of service.

Revenue Bonds

This form of debt financing is also available to the City for utility related capital improvements. Unlike G.O. bonds, revenue bonds are not backed by the City as a whole, but constitute a lien against the water service charge revenues of a Water Utility. Revenue bonds present a greater risk to the investor than do G.O. bonds, since repayment of debt depends on an adequate revenue stream, legally defensible rate structure /and sound fiscal management by the issuing jurisdiction. Due to this increased risk, revenue bonds generally require a higher interest rate than G.O. bonds, although currently interest rates are at historic lows. This type of debt also has very specific coverage requirements in the form of a reserve fund specifying an amount, usually expressed in terms of average or maximum debt service due in any future year. This debt service is required to be held as a cash reserve for annual debt service payment to the benefit of bondholders. Typically, voter approval is not required when issuing revenue bonds. For growth related projects this type of revenue places an unfair burden on existing residents as they had previously paid for their level of service.

State/Federal Grants and Loans

Historically, both local and county governments have experienced significant infrastructure funding support from state and federal government agencies in the form of block grants, direct grants in aid, interagency loans, and general revenue sharing. Federal expenditure pressures and virtual elimination of federal revenue sharing dollars are clear indicators that local government may be left to its own devices regarding infrastructure finance in general. However, state/federal grants and loans should be further investigated as a possible funding source for needed water system improvements.

It is also important to assess likely trends regarding federal / state assistance in infrastructure financing. Future trends indicate that grants will be replaced by loans through a public works revolving fund. Local governments can expect to access these revolving funds or public works trust funds by demonstrating both the need for and the ability to repay the borrowed monies, with interest. As with the revenue bonds discussed earlier, the ability of infrastructure programs to wisely manage their own finances will be a key element in evaluating whether many secondary funding sources, such as federal/state loans, will be available to the City.

Impact Fees

An impact fee is a one-time charge to a new development for the purpose of raising funds for the construction of improvements required by the new growth and to maintain the current level of service. Impact fees in Utah are regulated by the Impact Fee Statute and substantial case law. Impact fees are a form of a development exaction that requires a fee to offset the burdens created by the development on existing municipal services. Funding the future improvements required by growth through impact fees does not place the burden on existing residents to provide funding of these new improvements.

User Fees

Similar to property taxes on existing residents, User Fees to pay for improvements related to new growth related projects places an unfair burden on existing residents as they had previously paid for their level of service.

REFERENCES

Governor's Office of Management & Budget (GOMB). 2012. *2012 Baseline Projections – Sub County Population Projections.* 17 July 2014 <http://gomb.utah.gov/budget-policy/demographic-economic-analysis/>.

Highland City. 2014. *Highland City.* 17 June 2014. <http://www.highlandcity.org>

Hansen, Allen, & Luce, Inc. 2006. *Highland City Wastewater Collection System Master Plan.* Midvale, UT: Hansen, Allen, & Luce, Inc.

Lebaron, Donald and Elisabeth Luntz. 2007. *Incorporation of the Town of Highland.* 9 July 2014 <http://www.highlandcity.org/documentcenter/view/1079>.

Timpanogos Special Service District (TSSD). 2014. *Public Notice.* 9 July 2014 <http://timpanogosspecialservicedistrict.com/>.

Utah Division of Administrative Rules. 2011. *Utah Administrative Code, Title 11 36a Impact Fees Act.* The Department of Administrative Services.

Utah State Developmental Center (USDC). 2013. *Properties Master Plan in Utah County.* American Fork, UT: Utah State Developmental Center.